



**ORION**  
HIGH PERFORMANCE CAR AUDIO

*speaker*  
**owner's manual**

**C53**

**C63**

**C463**

**C573**

**C693**

**POWERED BY HARDCORE ATTITUDE**

## INTRODUCTION

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Thank you for your purchase of ORION's C-series Coaxial Speakers. These speakers offer renowned Orion excellence in every high performance speaker system. The speakers have a 3ohm nominal impedance which allows an amplifier or source unit to deliver 33% more power than an ordinary 4ohm speaker. The copolymer soft dome tweeter can be angled on a 360° axis for optimal imaging and sound quality. Designed for OEM applications, the C-series coaxial speakers will fit standard 5 1/4", 6 1/2", 4" x 6", 5" x 7" or 6" x 9" mounting locations.

## INSTALLATION

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The performance of the C-series coaxial speakers is directly proportional to the quality of installation. Care taken during the installation process will be rewarded with years of satisfying performance. If you are unsure about your installation capabilities, please refer to your local Authorized ORION Dealer for technical assistance. ORION dealers are trained professionals dedicated to obtaining the maximum performance out of your ORION system. If you decide to install this speaker system yourself, please read the entire installation section before starting your installation.

### TOOLS OF THE TRADE

Listed are the majority of the tools required to perform the installation. Having the proper tools will make the installation much easier. Some of these tools are required.

- marking pen
- electric drill
- 1/8" drill bit
- 1/4" drill bit
- Phillips screwdriver
- needle nose pliers
- volt-ohm meter (opt.)
- 4 3/4" (120mm) hole saw (5" woofer installation)
- 5 1/2" (140mm) hole saw (6" woofer installation)
- wire crimpers
- wire strippers
- wire cutters
- hole saw arbor
- assorted tin snips

## FINDING SPEAKER MOUNTING LOCATIONS

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Choosing the correct speaker locations will have the greatest effect on the sound quality of the system. There are many different considerations needed when choosing the locations that best suit your needs. The locations must be large enough for the speakers to fit. Care is needed to ensure that the location you have chosen will not affect any of the mechanical or electrical operation of the vehicle.

Determining the best location for the speakers will depend on your cosmetic needs and your vehicle's interior. If minimal intrusion in your vehicle is desired, factory speaker locations may be the ticket for you. Placing the speaker in the factory location can often give very desirable results.

### DOOR MOUNTING

When checking for possible speaker locations in the doors, check the operation of the window and all of the doors assemblies. There is also a stabilizer stop bar in between the door and the door jamb. This bar prevents the door from opening too far. Pay particular attention to this so you do not damage the speaker when you close the door.

### REAR DECK MOUNTING

In rear deck installations, check the operation of the trunk suspension springs or tension bars. These tension bars move in the opening and closing of the trunk. You cannot be too cautious during this part of the installation, In addition, do not locate the speakers too close to the back of the rear deck. Mounting the far screws will only be possible with the removal of the rear window.

## STEP BY STEP INSTALLATION

- Step 1: Determine where the speaker will be mounted. Make sure there is a flat area large enough for the speaker to fit properly. An uneven mounting surface can damage the driver.
- Step 2: Check to make sure the space you have chosen for the speaker will not interfere with the operation of the vehicle.
- Step 3: Using the plastic grille ring as a template, mark the speaker hole with a pen.
- Step 4: Cut the hole for the speaker. When using factory locations, this step can be passed. A hole can be cut either with a pair of metal tin snips or a hole saw corresponding to the size of the speaker listed below.
- 4 3/4" (120mm) hole saw (C53)
  - 5 1/2" (140mm) hole saw (C63)
- Step 5: Run the speaker wire to the speakers. Make sure to keep wires away from sharp metal or other edges. When passing through metal ,use a protective grommet.
- Step 6: Using the plastic grille ring as a template, mark the mounting holes with a pen.
- Step 7: Pre-drill mounting holes using a 1/8" drill bit.
- Step 8: The C-series coaxial speaker is placed in the grille ring from the front. Place the speaker and the grille ring in the installation hole. Align the mounting screw holes and drive in the four mounting screws. Push the perforated metal grille back into the grille ring.
- Step 9: Pull the wire through the speaker opening and connect to the speaker. Be sure to match the crossover wires to the speaker correctly, HF to HF and LF to LF of the speaker.

**WARNING: Window mechanisms and electrical wires have a nasty habit of hiding where you least expect. CHECK BEFORE YOU DRILL!**

## Coaxial Speaker Specifications

| Model C-series | Nominal Impedance | Power Continuous/ Maximum | Frequency Response | Sensitivity | Mounting Depth    | Mounting Diameter                    |
|----------------|-------------------|---------------------------|--------------------|-------------|-------------------|--------------------------------------|
| C53            | 3ohms             | 40/80                     | 90Hz to 20kHz      | 91dB        | 2 1/4"<br>(57mm)  | 4 3/4"<br>(120mm)                    |
| C63            | 3ohms             | 45/90                     | 60Hz to 20kHz      | 91dB        | 2 7/8"<br>(73mm)  | 5 1/2"<br>(140mm)                    |
| C463           | 3ohms             | 40/80                     | 85Hz to 20kHz      | 91dB        | 2 1/4"<br>(57mm)  | 5.9/16" x 3 3/8"<br>(142mm x 86mm)   |
| C573           | 3ohms             | 45/90                     | 80Hz to 20kHz      | 91dB        | 2 3/16"<br>(56mm) | 5 1/16" x 7 3/16"<br>(129mm x 183mm) |
| C693           | 3ohms             | 50/100                    | 55Hz to 20kHz      | 92dB        | 3 1/8 "<br>(80mm) | 8 7/8" x 6"<br>(226mm x 153mm)       |

\* ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

# Warranty

## LIMITED TWO YEAR CONSUMER WARRANTY:

Directed Electronics, Inc. promises to the original purchaser, to replace this product should it prove to be defective in workmanship or material under normal use, for a period of two years from the date of purchase from the dealer as indicated by the date code marking of the product **PROVIDED** the product was installed by an authorized Directed dealer. During this two-year period, there will be no charge for this replacement **PROVIDED** the unit is returned to Directed, shipping pre-paid. If the unit is installed by anyone other than an authorized Directed dealer, the warranty period will be one year from the date of purchase by the dealer as indicated by the date code marking of the product. This warranty is non-transferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose, and does not cover damage to the unit caused by installation or removal of the unit. During this one-year period, there will be no charge for this replacement **PROVIDED** the unit is returned to Directed, shipping pre-paid. This warranty is void if the product has been damaged by accident or unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. Units which are found to be damaged by abuse resulting in thermally damaged voice coils are not covered by this warranty but may be replaced at the absolute/sole discretion of Directed. **ALL WARRANTIES INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY ARE EXPRESSLY EXCLUDED TO THE MAXIMUM EXTENT ALLOWED BY LAW, AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF THE PRODUCT. DIRECTED HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS.** Unit must be returned to Directed, postage pre-paid, with bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number, and address, authorized dealer's name and address, and product description. Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. **IN ORDER FOR THIS WARRANTY TO BE VALID, YOUR UNIT MUST BE SHIPPED WITH PROOF OF INSTALLATION BY AN AUTHORIZED DIRECTED DEALER. ALL UNITS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF DIRECTED DEALER INSTALLATION WILL BE COVERED BY THE LIMITED 1 YEAR PARTS AND LABOR WARRANTY.** Note: This warranty does not cover labor costs for the removal and reinstallation of the unit. **BY PURCHASING THIS PRODUCT, THE CONSUMER AGREES AND CONSENTS THAT ALL DISPUTES BETWEEN THE CONSUMER AND DIRECTED SHALL BE RESOLVED IN ACCORDANCE WITH CALIFORNIA LAWS IN SAN DIEGO COUNTY, CALIFORNIA.**



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